APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/916,043	07/25/2001	Douglas Croeni	10007374-1	7399

			EXAMINER	
7590	02/02/2005		PAULA, CESAR B	

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 02/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application N .	Applicant(s)
Office Action Summary	09/916,043	CROENI, DOUGLAS
	Examiner	**Art Unit**	
	CESAR B PAULA	2178	

-- The MAILING DATE of this communication appears n the c ver sh et with the c rrespondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>08 October 2004</u> .

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)	4)☐ Interview Summary (PTO-413) Paper No(s). _____ .
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)	5)☐ Notice of Informal Patent Application (PTO-152)
3)☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .	6)☐ Other: .

DETAILED ACTION

1. This action is responsive to the amendment filed on 10/8/2004.

This action is made Final.

2. In the amendment, claims 1-20 are pending in the case. Claim 1, 11, and 19 are

independent claims.

Drawings

3. The drawings filed on 7/25/2001 have been approved by the examiner.

Claim Rejections - 35 USC § 112

4. Appropriate corrections have been made to claims 4, and 10. Therefore, the rejections

under second paragraph of 35 U.S.C. 112 have been withdrawn.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-2 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Seeger et

al, hereinafter Seeger (Pat.# 6,640,010 B2, 10/28/03, filed on 11/12/1999).

Regarding independent claim 1, Seeger discloses an OCR engine for defining bounding

boxes—bounding shapes-- around each word in a selected document region (col.4, line 63-col.5,

line 12, fig. 4-5, 10-11).

Furthermore, Seeger teaches placing or defining a bounding box is around that word in

the document. Once each word has been OCRed, the information for the bounding boxes is

placed in a text file—*situating a first and subsequent words in subsequent valid locations within

a page* -- (col.4, line 50-col.5, line 12, fig. 4-5, 10-11). Seeger fails to explicitly disclose: *a

bounding shape sets out an area invalid for additional word placement.* However, it would have

been obvious to a person of ordinary skill in the art at the time of the invention to set out the

bounding box as an area invalid for additional word placement, because Seeger teaches above

the enhancement of usability and productivity of text selection (col. 3, lines 47-53). This would

provide the benefit of keeping words from overlapping each other, thereby rendering the OCRed

text unreadable, and unusable.

Regarding claim 2, which depends on claim 1, Seeger discloses an OCR engine for

defining bounding boxes—bounding shapes-- around each word in a selected document region

(col.4, lines 11-18, 63-col.5, line 12, fig. 4-5, 11). In this situation, after a bounding box is

placed around a word, the next word is detected along with a space which is placed between the

words, and which would be varied as indicated by a user.

7.　　　　Claims 3-20 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Seeger et

al, hereinafter Seeger (Pat.#6,640,010 B2, 10/28/03, filed on 11/12/1999), in view of Ueda

(Pat.# 5,634,094, 5/27/1997).

Regarding claim 3, which depends on claim 1, Seeger discloses displaying results from

the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5,

line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or

replicating the OCR results, where the formatting information is retrieved and used for

displaying each word in their appropriate coordinates or location on the document—*checking a*

first location on the page for placement of the first word. Seeger fails to explicitly disclose:

checking a next location until the first valid location is found for placement of the first word.

However, Ueda teaches accommodating a word, wrapping around of that word, when it doesn't

fit, because it exceeds right margin of the document (col.4, lines 3-21, fig.4A-B). It would have

been obvious to a person of ordinary skill in the art at the time of the invention to have combined

Seeger, and Ueda, because Ueda teaches above the formatting a document by eliminating

misaligned edges on the right margin of a document. This would provide the benefit of providing

visually pleasing effect on the document.

Regarding claim 4, which depends on claim 1, Seeger discloses displaying results from

the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5,

line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or

replicating the OCR results, where the formatting information is retrieved and used for

displaying each word (until processing of all the words is exhausted) in their appropriate

coordinates or location on the document—*checking a next location on the page for placement of*

the first word. Seeger fails to explicitly disclose: *when the next location is invalid for text,*

checking a next location until a valid location is found for placement of the subsequent word

repeating substep b2 for additional subsequent words until there are no more subsequent words

to place. However, Ueda teaches accommodating a word, wrapping around of that word, when it

doesn't fit, because it exceeds right margin of the document (col.4, lines 3-21, fig.4A-B). It

would have been obvious to a person of ordinary skill in the art at the time of the invention to

have combined Seeger, and Ueda, because Ueda teaches above the formatting a document by

eliminating misaligned edges on the right margin of a document. This would provide the benefit

of providing visually pleasing effect on the document.

Regarding claim 5, which depends on claim 1, Seeger discloses displaying results from

the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5,

line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or

replicating the OCR results, as word images, where the formatting information is retrieved and

used for displaying each word (until processing of all the words is exhausted) in their appropriate

coordinates or location on the document. Seeger fails to explicitly disclose: *marking an area*

invalid for text, and reformatting the text by repeating steps b and c, the area marked invalid

being defined by a bounding shape for the image. However, Ueda teaches accommodating a

word, wrapping around of that word, when it doesn't fit , because it exceeds or is not within

margins of the document area marked by the margins (col.4, lines 3-21, fig.4A-B). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined Seeger, and Ueda, because Ueda teaches above the formatting a document by eliminating misaligned edges on the right margin of a document. This would provide the benefit of providing visually pleasing effect on the document.

Regarding claim 6, which depends on claim 1, Seeger discloses displaying results from the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5, line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or replicating the OCR results, where the formatting information is retrieved and used for displaying each word (until processing of all the words is exhausted) in their appropriate coordinates or location on the document. Seeger fails to explicitly disclose: *processing text code that indicates which locations within the page are available for text placement.* However, Ueda teaches accommodating a word, wrapping around of that word, when it doesn't fit in allowed margins-- *text code that indicates which locations within the page are available for text placement*-- because it exceeds right margin of the document (col.4, lines 3-21, fig.4A-B). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined Seeger, and Ueda, because Ueda teaches above the formatting a document by eliminating misaligned edges on the right margin of a document. This would provide the benefit of providing visually pleasing effect on the document.

Regarding claim 7, which depends on claim 6, Seeger discloses displaying results from the OCR procedure, using formatting information for each word's bounding box (col.4, lines 11-18, 63-col.5, line 12, fig. 4-5, 11).

Regarding claim 8, which depends on claim 6, Seeger discloses displaying results from the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5, line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or replicating the OCR results, where the formatting information is retrieved and used for displaying each word (until processing of all the words is exhausted) in their appropriate coordinates or location on the document. Seeger fails to explicitly disclose: *text code that allows marking of areas within a page as being invalid for text placement*. However, Ueda teaches accommodating a word, wrapping around of that word, when it goes outside allowed margins, because it exceeds right margin of the document (col.3, lines 20-33, col.4, lines 3-21, fig.4A-B). It would have been obvious to a person of ordinary skill in the art at the time of the invention to have combined Seeger, and Ueda, because Ueda teaches above the formatting a document by eliminating misaligned edges on the right margin of a document. This would provide the benefit of providing visually pleasing effect on the document.

Regarding claim 9, which depends on claim 6, Seeger discloses displaying results from the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5, line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or replicating the OCR results, where the formatting information is retrieved and used for

displaying each word (until processing of all the words is exhausted) in their appropriate

coordinates or location on the document. Seeger fails to explicitly disclose: *text code that allows*

marking of an area within a shape (page area) *as being invalid for text placement.* However,

Ueda teaches accommodating a word, wrapping around of that word, when it goes outside

allowed an area as marked by the margins,   because it exceeds right margin of the document

(col.3, lines 20-33, col.4, lines 3-21, fig.4A-B). It would have been obvious to a person of

ordinary skill in the art at the time of the invention to have combined Seeger, and Ueda, because

Ueda teaches above the formatting a document by eliminating misaligned edges on the right

margin of a document. This would provide the benefit of providing visually pleasing effect on

the document.

Regarding claim 10, which depends on claim 1, Seeger discloses displaying results from

the OCR procedure, using formatting information for each word (col.4, lines 11-18, 63-col.5,

line 12, fig. 4-5, 11). In this situation, the formatting information is used for displaying or

replicating the OCR results, where the formatting information is retrieved and used for

displaying each word in their appropriate coordinates(the words located one after another) or

location on the document—*checking a next location on the page for placement of a subsequent*

word. Seeger fails to explicitly disclose: *when the next location is invalid for text, checking a*

next location until a valid location is found for placement of the subsequent word repeating

substep b2 for additional subsequent words until there are no more subsequent words to place.

However, Ueda teaches accommodating a word, wrapping around of that word, when it doesn't

fit, because it exceeds right margin of the document (col.4, lines 3-21, fig.4A-B). It would have

been obvious to a person of ordinary skill in the art at the time of the invention to have combined

Seeger, and Ueda, because Ueda teaches above the formatting a document by eliminating

misaligned edges on the right margin of a document. This would provide the benefit of providing

visually pleasing effect on the document.

Regarding independent claim 11, Seeger discloses an OCR engine for defining bounding

boxes—bounding shapes-- around each word in a selected document region (col.4, line 63-col.5,

line 12, fig. 4-5, 10-11).

Moreover, Seeger discloses displaying results from the OCR procedure, using formatting

information for each word (col.4, lines 11-18, 63-col.5, line 12, fig. 4-5, 11). In this situation,

the formatting information is used for displaying or replicating the OCR results, where the

formatting information is retrieved and used for displaying each word (until processing of all the

words is exhausted) in their appropriate coordinates or location on the document—*checking a*

next location for placement of a word. Seeger fails to explicitly disclose: *a bounding shape sets*

out an area invalid for additional word placement. However, it would have been obvious to a

person of ordinary skill in the art at the time of the invention to have set out the bounding box as

an area invalid for additional word placement, because Seeger teaches above the enhancement of

usability and productivity of text selection (col. 3, lines 47-53). This would provide the benefit of

keeping words from overlapping each other, thereby rendering the OCRed text unreadable, and

unusable.

Moreover, Seeger fails to explicitly disclose: *when the next location is invalid for text,*

checking a next location until a valid location is found for placement of the subsequent word

repeating step b and step c for subsequent words until there are no more words to place.

However, Ueda teaches accommodating a word, wrapping around of that word, when it doesn't

fit, because it exceeds right margin of the document (col.4, lines 3-21, fig.4A-B). It would have

been obvious to a person of ordinary skill in the art at the time of the invention to have combined

Seeger, and Ueda, because Ueda teaches above the formatting a document by eliminating

misaligned edges on the right margin of a document. This would provide the benefit of providing

visually pleasing effect on the document.

Claims 12-18 are directed towards a method for implementing the steps found in claims

2, and 5-10 respectively, and therefore are similarly rejected.

Claims 19-20 are directed towards a computer program product on a computer-readable

medium for storing the steps found in claims 11, and 6 respectively, and therefore are similarly

rejected.

Response to Arguments

8.   Applicant's arguments filed 10/8/04 have been fully considered but they are not

persuasive. Regarding claim 1, Applicant states that Seeger is not discussing word placement in

col.3, lines 47-53, but is rather using information taken from OCR to perform text selection

(page 11, lines 3-10). Seeger teaches storing of recognized OCRed text, along with formatting

information, such as bounding boxes for the recognized words that indicate the coordinates for

those words (col.4, lines 50-62, and col.5, lines 7-12). In other words, after the text selection in a

document image has been performed, the OCRed text together with bounding boxes indicating the coordinates or placement of the OCRed words in a new document, are stored in a single file for later use and display.

In addition, Applicant has pointed out that the motivation statement that 'this would provide the benefit of keeping words from overlapping each other, thereby rendering the OCRed text unreadable' does not make sense, because the bounding boxes of Seeger are used while the text is being recognized, and not for placing the text (page 11, lines 11-18). The Examiner disagrees, because Seeger teaches the utilization of bounding boxes well after the OCR process has taken place col.4, lines 50-62, and col.5, lines 7-12). After the OCR process has been performed, the resulting data, including OCRed text, and bounding boxes, are stored in a file for later use, such as display in a document. Therefore, it would have been obvious to one of ordinary skill in the art to use the bounding boxes for the recognized OCRed words for not placing words on top of each other or overlapping so that the user would quickly view the words without having to deciphering the recognized words, thereby enhancing usability and productivity(goals of Seeger col.3, lines 47-53).

Applicant submits that Seeger's bounding boxes don't prevent overlap, because they are used during the recognition phase of the words, they are not pertinent to any subsequent placement of the words, and are not related to subsequent placement of the recognized words within a text region (page 11, line 19-page 12, line 2). The Examiner disagrees, because the <u>bounding boxes are used for formatting purposes, after the words have been recognized; this is why they are placed in a file together with the recognized text.</u>

Regarding claim 11, Applicant notes that col.3, lines 47-53 does not teach word

placement (page 13, lines 3-11). This cited portion of Seeger is teaching the motivation for

enhancement of usability and productivity of an OCRed document to be displayed using the

recognized text, and formatting information (word placement information), such as word

bounding boxes (col.3, lines 33-39, 49-53, col.4, lines 52-67). The bounding boxes are used for

formatting purposes, not just recognition purposes. The reason why the bounding boxes are

placed in a file after the boxes have been used for recognizing the characters, is for formatting

the recognized text. Therefore, it would have been obvious to one of ordinary skill in the art to

use the bounding boxes for the recognized OCRed words for not placing words on top of each

other or overlapping so that the user would quickly view the words without having to

deciphering the recognized words, thereby enhancing usability and productivity by displaying a

document that is quickly read.

Claim 19 is rejected at least for the same reasons stated above concerning claims 1, and

11.

Conclusion

9.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing

date of this final action.

I.   The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure. Egger et al. (Pat. # 6,233,571), and Mason (Pat. # 5,214,755).

II.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Cesar B. Paula whose telephone number is **(571) 272-4128**. The

examiner can normally be reached on Monday through Friday (every other Friday off) from 8:00

a.m. to 4:00 p.m. (EST).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Stephen Hong, can be reached on (571) 272-4124. However, in such a case, please

allow at least one business day.

Information regarding the status of an application may be obtained from the Patent

Application Retrieval (PAIR) system. Status information for published applications may be

obtained from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the PAIR

system, go to http://portal.uspto.gov/external/portal/pair. Should you have any questions about

access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866

217-9197 (toll-free).
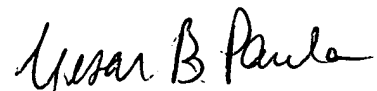
Any response to this Action should be mailed to:

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450

Or faxed to:

- **(703) 703-872-9306,** (for **all** Formal communications intended for entry)

CESAR B PAULA

PRIMARY EXAMINER

AU 2178

1/31/05